

65

REPORT

CD NO.

DATE OF INFORMATION 1 50

DATE DIST. 4 Jan 1954

NO. OF PAGES 1

SUPPLEMENT TO
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U.S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

Jen-min T'ieh-tao (People's Railways), Vol II, No 11

Chart and tables referred to : see appended.

Wu Chih-chiao

I. COLLECTION OF DATA

With reference to commercial cargo, an enterprise or shipper should estimate the volume of freight transport needs for an ensuing month, fill out a Shipper's Freight Car Order Form, shown in Table 1, and submit it, not later than the 15th of each month to the local station or subbureau of the railway line. Similarly, with reference to materials and supplies, the various divisions and departments of the railroad should estimate the railroad's car requirements for the following month and submit them in advance on the required order form to their respective subbureaus. With reference to military supplies and transport, it should be noted that since the military establishments often are unable to determine much in advance their military transport needs, the order forms they submit are based mainly on the actual figures of several preceding months.

50X1-HUM

CONFIDENTIAL

[illegible]

CONFIDENTIAL

50X1-HUM

II. PROCEDURE FOR FORMULATING MONTHLY TRANSPORT PLANS

Compilation of Data

1. One part of the freight data used in formulating the monthly transport plans is supplied by the stations in the home bureau's territory. The first step is for each station to summarize on the Station Summary Car Order Form, shown in Table 2, the data supplied to it on the forms shown in Table 1 and to dispatch them to the subbureau. The next step is for the subbureau to summarize on the Bureau Summary Car Order Form, shown in Table 3, the information supplied to it by the stations, together with that which they have received directly from the railroad divisions and departments and from the military. The Bureau Summary Car Order Form shows the stations of origin, destination, kinds of goods, types and numbers of cars, and transport distances within and outside of the home bureau's territory, separately computed for commercial, railroad, and military traffic and for each type of car. This information is used for planning the transport operations for each station and dispatching point in the home bureau's territory, and part of it may be used by a neighboring bureau for a similar purpose.

In the freight kilometrage column of this form a distinction is made between the freight cars loaded and unloaded at stations in the same sub-bureau or bureau, and those loaded at stations in one subbureau or bureau and unloaded in foreign territory. The former is known briefly as intrabureau freight and the latter, as interbureau freight. The information for intrabureau freight is used to compute the turnaround time for cars unloaded in the home bureau.

In Table 4, Bureau's Plan for Number of Cars Required, and Tonnage, by Commodities, the information concerning the planned number of cars to be loaded and dispatched daily, with tonnages involved, is entered.

Table 5, Planned Loaded Cars Outbound to ... Bureau, indicates the number and type of loaded cars scheduled to pass specified border stations from the territory of one bureau to stations in the territory of another bureau. A copy of this form, with data, is to be supplied to the other bureau(s) concerned.

2. The other part of the information used in making the monthly freight transport plans is received from neighboring bureaus on forms shown in Table 6, Planned Outbound Cars to a Foreign Bureau, which show the number of loaded cars and kind of cargo expected to enter the home bureau from a neighboring bureau. The home bureau then transcribes the information on forms shown in Table 7, Incoming Freight Transport Plan by Stations. This form shows the kilometrage in the territory of the home bureau and the territory of the other bureau(s) involved. The kilometrage for through freight and for freight to be unloaded at stations in the territory of the home bureau are computed separately so as to show the volume of work to be performed in the home bureau territory. These and other computations and recordings are made for use in calculating the turnaround time of freight cars to be unloaded in the home bureau and for entering in the interbureau traffic section of the form shown in Table 12.

Determination of the Number of Cars Needed

On the basis of the data supplied by the various stations, dispatching points and subbureaus, the bureau prepares on the form shown in Table 4 its monthly plan showing by commodities the number of cars of various types needed per day and per month and the planned tonnage for the month. On this form are also indicated the respective stations of origin and destination. Its

- 2 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

main use is to show the planned daily task for each station as regards anticipated carloadings, train handling, and direction of flow of goods. From it may be obtained the total number of cars in use and an idea as to whether the volume of traffic to be handled by any one station or junction point is greater than its capacity.

The data on the forms shown in Table 4 and Table 7 may be transferred to the chart, Planned Transport Strength, indicating the different types of cars and the direction of movement. Thus the total number of cars of each type may be ascertained. From these figures, the kilometrage of loaded cars and empty cars may be calculated, and the percentage of empty cars may be determined. This is accomplished by calculating the numbers of each type of car to be moved on each run, in both directions, to determine the difference between the number of cars, by type, moving in one direction and the number moving in the opposite direction. This difference will indicate the number of empty cars of the proper types which need be added to one or the other train to equalize car movements. With these figures available, the number of pairs of trains on the various runs may be planned and entered on the form shown in Table 8, Planning Train Schedules. This form should be made out in triplicate for each pair of trains.

Rules for Obtaining Data for Calculation of Turnaround Time

1. Kilometrage of Loaded Cars

The form shown in Table 9, Planned Kilometrage of Loaded Cars, is used to arrive at figures for the planned kilometrage of loaded cars for each subbureau, and from the summarization of these, for the bureau as a whole, by entering in it the data supplied by the various reporting units. This information should be entered under six categories for each type of car. The six categories are divided into two groups, namely, (a) the kilometrage of cars to be unloaded within the territory of the home subbureau; and (b) the kilometrage of cars to be unloaded outside the home subbureau. The three categories in the first group are as follows:

- a. Kilometrage of cars to be loaded and unloaded in the territory of the same home subbureau.
- b. Kilometrage of cars loaded in another subbureau of the home bureau and unloaded in the home subbureau.
- c. Kilometrage of cars loaded in the territory of another bureau and unloaded in the home bureau.

The three categories in the second group are as follows:

- a. Kilometrage of cars loaded in the home subbureau and unloaded in another subbureau of the same home bureau.
- b. Kilometrage of cars loaded in another subbureau of the home bureau for transport through the home subbureau for unloading outside the latter.
- c. Kilometrage of cars loaded in the territory of another bureau for transport through the home subbureau for unloading outside the latter.

The loaded-car kilometrage figures thus obtained for various types of cars by subbureaus and bureaus are needed for the computation of the turnaround time of freight cars.

- 3 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

2. Travel Speed

The planning of the average travel speed of trains in the territory of a given bureau should depend on the reports supplied by subbureaus, concerning the number of trains and the scheduled travel speeds of the trains on the various runs, adjusted in the light of actual speeds during the first 20 days of the month in which planning for the next month takes place.

Since the characteristics of various runs differ from each other, the travel speeds will naturally vary; furthermore, there are more trains operating on some runs than on others. For example, if there are eight pairs of trains per day operating between Feng-t'ai and Tientsin at an average speed of 23 kilometers per hour and if there are three pairs of trains per day operating between Feng-t'ai and Shih-chia-chung at an average speed of 20 kilometers per hour, then, if 23 and 20 are averaged, the result is 21.5 kilometers per hour. However, it is preferable to judge the speeds according to the number of pairs of trains. Then the result would be $(8 \times 23 + 3 \times 20)$ divided by 11, which equals 22.18 kilometers per hour. The latter method, which takes the number of trains into account, is more reasonable and accurate.

3. Empty-Car Kilometrage Ratio

The kilometrage of loaded cars on all the runs in a subbureau is ascertained by multiplying the distances between terminals by the number of loaded cars transported on those runs in both directions. The principal source of this information is the chart, Planned Transport Strength. This information, together with the pertinent computations separately made for each type of car and for each run, should be entered on the form shown in Table 10, Planned Empty-Car Kilometrage Ratio. For each type of car and each run, the difference between the number of loaded cars to be moved in one direction, compared with the corresponding number in the opposite direction, will indicate the numbers of empty cars that have to be moved to equalize car movements. When these numbers of empty cars are multiplied by the respective distances for which they are to be hauled, the planned figures for empty-car kilometrage are found. The empty-car kilometrage ratio is found by dividing the empty-car kilometrage by the loaded-car kilometrage. The computations are to be made for each run, for each type of car, and for each subbureau. Then they are to be totaled and averaged for the whole bureau.

4. Average Switching Distance

The average switching distance is arrived at by ascertaining from the chart the number of loaded cars that pass switching points and increasing that number by the percentage of empty cars to secure the total number of cars switched. Then, the total kilometrage for all cars is divided by the total number of cars switched, and the quotient obtained will be the Average Switching Distance. This method of finding the latter figure is short and easy. The home bureau, in calculating Average Switching Distance for the total number of cars switched, uses the sum of the number, by actual count, of the loaded and empty cars switched, rather than using the percentage-of-empty-cars method. Although the method used by this bureau is more laborious, it gives more accurate results.

To ascertain the number of loaded cars that pass switching points according to the planned traffic for the current month, reference may be made to the form shown in Table 3, Bureau Summary Car Order Form, using only that portion of it that concerns the home bureau. (The form shown in Table 4 may be used for this purpose as an alternative.) Account must also be taken of the number of loaded cars switched which enter the home bureau territory from another bureau. The numbers of each type of loaded car switched at each switching point should be indicated, in the boxes of the respective switching

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

points on the form shown in Table 11, Record of Loaded Cars to Pass Switching Stations. The sum of the number of cars of all categories actually switched at all switching points is the total for the whole bureau.

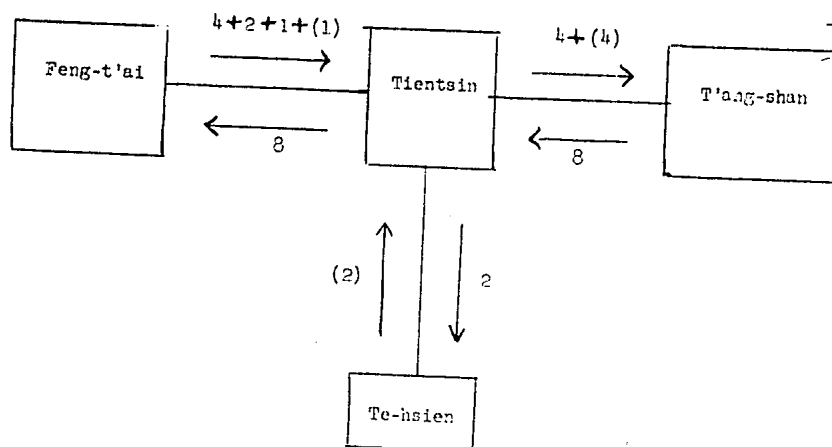
The operation of ascertaining the number of empty cars switched is not as simple as in the case of unloaded cars. Not all empty cars passing a switching point can be regarded as switched cars. Some cars become empties after arriving at a switching point and, having been unloaded, are then attached to a departing train; some empty cars at a switching point are loaded and then dispatched; some empty cars pass a switching point on a through train. Such empty cars as these are not to be counted as switched empty cars. For example, if loaded cars are dispatched at a switching point having tracks leading in three or more directions, such as that at Tientsin, the following procedure takes place:

Feng-t'ai to T'ang-shan, four loaded boxcars

Feng-t'ai to Te-hsien, two loaded boxcars

Feng-t'ai to Tientsin, one loaded boxcar

T'ang-shan to Feng-t'ai, eight loaded boxcars



Let the figures in parentheses in the above diagram represent the number of empty cars. It will be seen that there are seven loaded boxcars going from Feng-t'ai to Tientsin and eight going in the reverse direction. To maintain the same number of cars running in both directions, it is necessary for the Feng-t'ai station to dispatch one empty car to Tientsin. Then, there are four loaded boxcars going from Tientsin to T'ang-shan and eight running in the reverse direction. For the same reason, it is necessary for the Tientsin station to dispatch four empty cars to T'ang-shan. Two loaded boxcars are sent from Tientsin to Te-hsien, but none goes in the reverse direction. Similarly, it is necessary for Te-hsien to send two empty boxcars to Tientsin. It will be noted that the Tientsin station receives three empty boxcars and dispatches four empty boxcars and that the lesser of these two numbers is the number of empty cars actually switched. The same method of calculation should

- 5 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

be used for all the other types of empty cars. The total number of switched empty cars of all kinds should be combined with the number of switched loaded cars to determine the Average Switching Distance. Finally, the planned daily average car kilometrage should be divided by the daily average total number of loaded and empty cars switched, and the quotient will correspond with the planned Average Switching Distance.

5. Switching Time

For use in computations, a standard-unit Switching Time for actual switching operations (rearrangement of cars) and one for through train switching (merely change of locomotives) should be adopted, based on past experience and anticipated improvements. For instance, assuming that at a certain switching point there are 50 cars involved in a through-train switching operation requiring 2 hours, and 50 cars are involved in a rearrangement-switching operation requiring 6 hours, the average Switching Time for that station is equal to the sum of 50×2 and 50×6 , divided by the sum of 50 and 50, which is 4 hours. If, for instance, as a result of technical improvements, the switching time for through trains should be reduced to 1.8 hours and that for rearrangement of trains to 5.6 hours, the new standard-unit average Switching Time for that station would be the sum of 50×1.8 and 50×5.6 , divided by the sum of 50 and 50, which is 3.7 hours. The average Switching Time for a bureau is the total aggregate Switching Time for all trains and all switching points in the bureau, divided by the total number of cars switched.

6. Number of Cars Loaded, Number Unloaded, and Number Entering or Leaving a Border Station

This information may be derived from the form shown in Table 12, Summary Form for Planning Use of Cars, after having entered in it data obtainable from the forms shown in Table 4 and Table 7 or from sections of the reports of operational plans submitted by the various stations, and making the pertinent calculations. It is possible to get from the form shown in Table 12, for the home bureau, the number of cars dispatched daily (that is, daily carloadings); and this will embrace the figures for cars unloaded and reloaded in home territory and then dispatched to foreign territory, the daily number of loaded cars received from foreign territory, and the number of the latter which are to be unloaded in home territory and those that are to pass through to another territory. These figures supply the important factors that are required for the computation of the operating ratio.

7. Operating Time

The Operating Time, as in the case of average Switching Time, is based on the data of past experience, amended, if deemed advisable, by allowance for anticipated developments or improvements.

8. Unloading Ratio

Most of the factors used for the calculation of car turnaround time may be used in calculating the turnaround time for cars unloaded within the bureau area. It is still necessary to ascertain the Unloading Ratio. The Unloading Ratio is the ratio represented by a fraction, where the numerator is the number of cars of home origin to be unloaded in home territory plus the total number of cars to be unloaded in home territory, and the denominator is the sum of the number of cars to be loaded and the number of cars to be unloaded in the home territory. The data required for this calculation, namely, figures pertaining to home operations for the number of cars to be loaded, number to be locally loaded and unloaded, and number of cars of foreign origin to be received for home unloading, may be found by using the form shown in Table 12.

- 6 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

9. Kilometrage of Empty Cars

To compute the proportion of the number of empty cars available for use to the total number of cars in use, it is necessary to know the turnaround distance of empty cars. To get the latter figure, the total kilometrage of loaded cars must be multiplied by the empty-car kilometrage ratio.

Having ascertained the figures for these various factors, namely, the kilometrage of loaded cars and of unloaded cars, the empty-car kilometrage ratio, the travel speed, average switching distance, average switching time, operating ratio, operating time, and unloading ratio, it is now possible to calculate the turnaround time for freight cars, the turnaround time for cars unloaded, and the proportion of empty cars expected to be available for loading.

Car Distribution by Categories

The planned monthly car distribution by categories for each subbureau and bureau is to be found on the form shown in Table 13, Car Distribution and Incoming and Outgoing Car Plans. This shows the following items.

1. Cars in use -- This is equal to the Daily Work Load (DWL), multiplied by the turnaround time.
2. Cars assigned to special duties and those commandeered -- The number of these cars is set by higher authority, and having been entered in the plans, it must not be altered without due procedure.
3. Car repairs -- Each month, the bureau determines the number of cars to be scheduled for repairs. This number may be based on the number repaired in the preceding month. However, it is more rational and accurate to base the plans on the standard practice for scheduling inspections and repairs.
4. Cars in Reserve -- The number of cars in reserve is the number remaining after deducting from the total number of cars which the bureau has assigned to it all the cars of the following categories, namely, cars in use for ordinary traffic purposes, cars not engaged in ordinary traffic, and cars under repair. The cars in reserve should not be put in use unless the volume of traffic to be handled exceeds the capacity of the cars in regular use.
5. Incoming and Outgoing Cars -- On the form shown in Table 14, Planned Car Movements by Border Stations, there should be entered, one by one, separately for each type of car, a record of each incoming and outgoing car that passes a border station of a subbureau or bureau, as the case may be. When all pertinent data have been entered and summarized, the form will indicate the total number of cars of each type that enter or leave the border stations. If there is a greater number of any type of car moving in one direction than in the opposite direction, this form will show the number and direction of empty cars of each type that should be forwarded to maintain equality of flow in both directions.

Arrangement of Train Schedules

The number of pairs of trains currently needed on each run having been ascertained for the following month, the train schedules must be arranged cooperatively by responsible representatives of the traffic planning office and the mechanical division. When these arrangements are being made, due regard must be given to the return trips of the locomotives and to the continuity of car movements through and beyond switching points.

- 7 -

CONFIDENTIAL

50X1-HUM

CONFIDENTIALTechnical Information Pertaining to Train Schedules

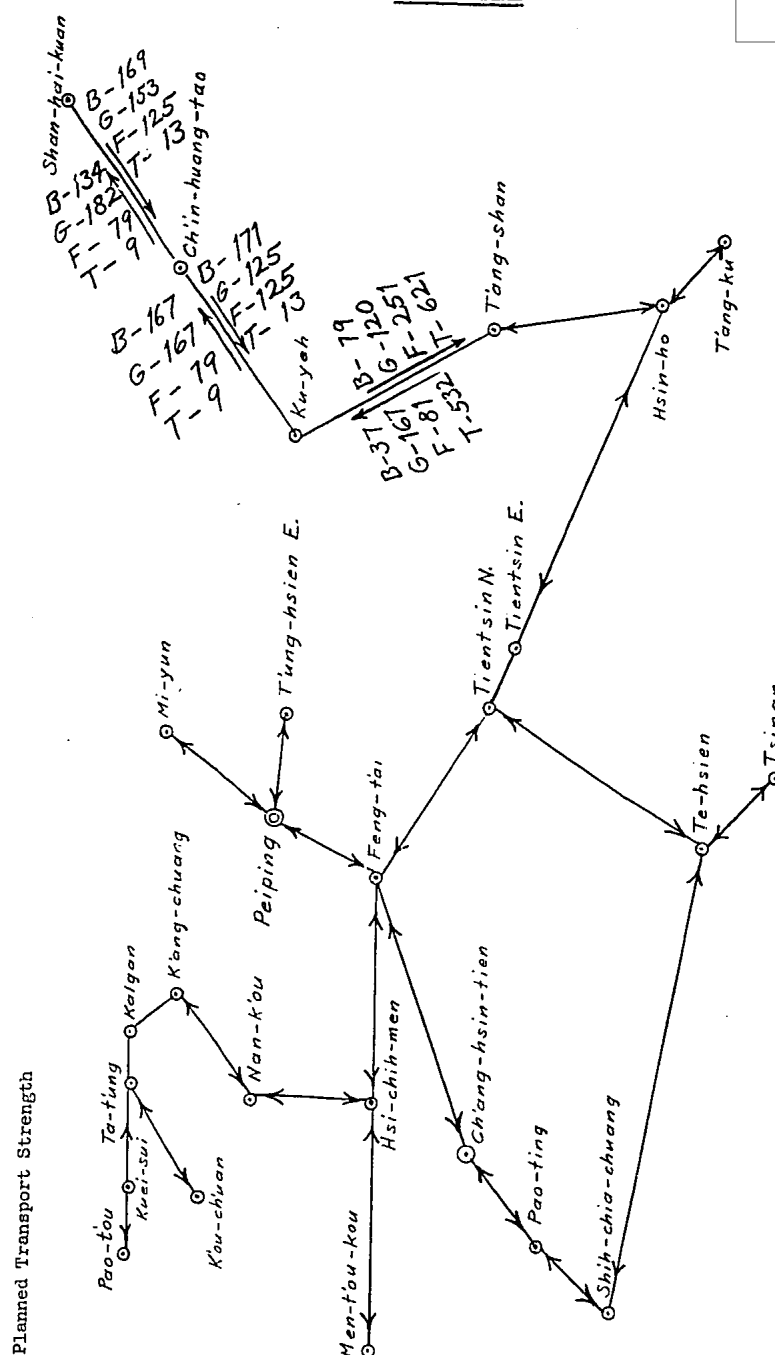
When the traffic plans and train schedules have been determined, and are to be announced, but before they are put in operation, there are the following six sets of technical information that should be sent to the various operating units in advance, with the effective date indicated.

1. Information on the Form Shown in Table 15 -- This form is entitled Planned Disposition of Cars by Commodities, Numbers, and Tonnages. This information is arranged to indicate, by subbureau, the three categories of traffic, i.e., commercial, railroad, and military, and also should show the traffic that is directed to foreign territory. Thus, from this form, a comprehension of the daily traffic operations of the bureau may be gained.
2. Information on the Form Shown in Table 16 -- This form is to show for each subbureau and the entire bureau, the daily flow of cars for both intramural and intermural traffic. It includes the figures for the preceding month so that comparison can be made to indicate trends.
3. Information on the Form Shown in Table 17 -- For each subbureau or dispatching point, this form shows the daily number of cars to be loaded and dispatched, by commodities, with destinations, whereby the quantity and direction of flow of goods may be seen.
4. Information on the Form Shown in Table 18 -- This form contains information for each run on the planned number of trains, and by reference to other data, it is possible to judge whether the planned train capacity is greater or less than required.
5. Information on the Form Shown in Table 19 -- This form shows the number and types of cars required each day for the entire bureau. It indicates the allocations of available cars that the subbureaus and the bureau must make to handle the traffic.
6. Information on the Form Shown in Table 20, Technical Statistics for Use in Planning. In this form, there should be recorded the resulting calculations made to ascertain the value of the various factors pertaining to car requirements. It becomes the standard reference for the work of the whole bureau and hence is of great importance.

Charts and tables follow.

CONFIDENTIAL

50X1-HUM

CONFIDENTIAL

- 9 -

CONFIDENTIAL

CONFIDENTIAL

- 10 -

TABLE 1. SHIPPERS' FREIGHT CAR ORDER FORM
(PEIPING BRANCH OF CHINA COTTON TEXTILE COMPANY)

| MONTH JULY 1950 | | SHIPPER | | CONSIGNEE | | TYPES OF CARS | | | | | STATION OF ORIGIN <u>PEIPING</u> | | |
|--------------------|------------|---|--------------------------|-----------|--|---------------|---|---|---|---|----------------------------------|-------------|---------|
| DESTINATION | COMMODITY | NAME | ADDRESS | | | B | G | F | T | O | TOTAL | CAR TONNAGE | REMARKS |
| TIENTSIN | RAW COTTON | NAN-KAI BRANCH CHINA COTTON TEXTILE COMPANY | 3 CH'ENG-SIA HU-T'UNG | TIENTSIN | | 2 | | | | | 2 | 30 | |

(SIGNED) MANAGER _____ DEPARTMENT CHIEF _____

NOTE: THE FOLLOWING ABBREVIATIONS ARE USED IN THIS AND OTHER TABLES TO SIGNIFY TYPES OF CARS: B= BOXCAR, G= GONDOLA CAR, F= FLATCAR
T= TANK CAR, H= HOPPER CAR, AND O= OTHER

CONFIDENTIAL

50X1-HUM

TABLE 2. STATION SUMMARY CAR ORDER FORM

| MONTH: FEBRUARY 1952 | | | | | | TIENTSIN BUREAU | | | | | |
|----------------------|-------------------|-------------|-------------|-------------------|-----------|-----------------|---|---|---|---|---------|
| PLAN No | STATION OF ORIGIN | DESTINATION | COMMODITIES | CONSIGNOR | CONSIGNEE | TYPES OF CARS | | | | | REMARKS |
| | | | | | | B | G | F | T | O | |
| 344 | TIENTSIN N | CHENG-CHOU | SALT | HUNG-YUAN COMPANY | | 6 | | | | | 6 |
| 345 | TIENTSIN N | KALGAN | LOGS | HUNG-YUAN COMPANY | | | 5 | | | | 5 |
| | | | | | | 6 | 5 | | | | 11 |

CHENG-CHOU 6
KALGAN 5
LOGS 5
SALT 6
B 6
G 5

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

TABLE 3. BUREAU SUMMARY CAR ORDER FORM

MONTH

MAY 1950

/FROM/ TA-T'UNG DISPATCHER'S OFFICE

| PLAN SYMBOL | ORIGIN | DESTINATION | COMMODITY | SHIP- PER | CON- SIGNEE | TYPES OF CARS | | | | | KILOMETRAGES IN BUREAUS | | | TOTAL |
|----------------|-----------------|--------------|-------------|--------------|----------------|---------------|----|---|---|---|-------------------------|---------|--------|-------|
| | | | | | | B | G | F | T | O | TIENTSIN | PEIPING | KALGAN | |
| KUNG | K'OU-CH'UAN | JIH-HUI | COAL | | | 3 | | | | | 703 | 603 | 954 | |
| | K'OU-CH'UAN | KALGAN | COAL | | | 3 | | | | | | | 605 | |
| | K'OU-CH'UAN | KUEI-SUI | COAL | | | 3 | | | | | | | 917 | |
| | TA-T'UNG | HSI-CHIH-MEN | GRAIN | | | 3 | | | | | | 210 | 895 | |
| | TA-T'UNG | HSI-CHIH-MEN | MIXED GOODS | | | 2 | | | | | | 140 | 597 | |
| | FENG-CHEN | HSI-CHIH-MEN | GRAIN | | | 2 | | | | | | 140 | 686 | |
| | P'ING-TI-CH'UAN | HSI-CHIH-MEN | GRAIN | | | 2 | | | | | | 140 | 851 | |
| | CH'U-HSIA-HSIH | HSI-CHIH-MEN | GRAIN | | | 2 | | | | | | 140 | 1,067 | |
| | CH'U-HSIA-HSIH | HSI-CHIH-MEN | MIXED GOODS | | | 2 | | | | | | 140 | 1,067 | |
| | P'ING-TI-CH'UAN | HSI-CHIH-MEN | MIXED GOODS | | | 3 | | | | | | 210 | 851 | |
| | | | | | | TOTAL | 25 | | | | | 703 | 1,723 | 8,490 |

GRAND TOTAL 10,916

CONFIDENTIAL

CONFIDENTIAL

ENCLOSURE PAGE 13 HERE

50X1-HUM

KILOMETRAGES BY SUBDIVISION BY CATEGORY
RIES, SUMMARIZED

SUBDIVISIONS: D S F T O TOTAL

RAILWAY HOME LOADING AND FOREIGN UNLOADING 1,522
 PEKING HOME LOADING AND FOREIGN UNLOADING 6,968
 BEIJING INCREASING FOR HOME UNLOADING 1,120
 TIENTSIN INCREASING FOR THROUGH TRAVEL 603
 TIENTSIN 703
 10,911

THROUGH TRAVEL KILOMETRAGES TO OTHER BUREAUS
PEKING TAI-YUAN CHENGDEW SHANGHAI NORTHEAST

1960

TIENTSIN RAILWAY BUREAU

SUMMARIZED KILOMETRAGES IN HOME BUREAU

HOME LOADING AND FOREIGN UNLOADING
 B --
 C 8,556
 F --
 T --
 O --
 TOTAL --

HOME LOADING AND FOREIGN UNLOADING
 B --
 C 2,250
 F --
 T --
 O --
 TOTAL --

GRAND TOTAL 10,911

CONFIDENTIAL

CONFIDENTIAL

- 13 -

50X1-HUM

Table 4. Bureau's Plans for Number of Cars Required, and Tonnage, by Commodities

| Month | Dispatched from Suiyuan | Merchandise | | | | | |
|------------------|-------------------------|------------------------------------|--------------------------------|--------|--------|-------|---------------------------------------|
| | | Grains | Coal | Cement | Lumber | Foods | Others |
| Category | | | | | | | Total |
| Carloads daily | | 22 | 4 | | | | 15 41 |
| Carloads monthly | | 682 | 124 | | | | 465 1,271 |
| Monthly tonnage | | 20,460 | 3,720 | | | | 8,370 32,550 |
| Terminals | | Su-la-ch'i to Tientsin one G | Pao-t'ou to Kuci-sui 2 G | | | | Pao-t'ou to Feng-t'ai One LCL B |
| | | Su-la-ch'i to Peiping 2 G | | | | | |

[Adjoins page 15 here.]

CONFIDENTIAL

[Adjoins page 16 here.]

50X1-HUM

| Railroad Supplies | | | | | | |
|-------------------|--------|------|--------|-------|-------------------|--------|
| Coal | Cement | Ties | Others | Total | Military Supplies | Total |
| | | | | | | 41 |
| | | | | | | 1,271 |
| | | | | | | 32,550 |

... Bureau
Special Trains for Rail-
road Construction Work

CONFIDENTIAL

- 15 -

Adjoins page 16 here.

CONFIDENTIAL

Adjoins page 17 here.

50X1-HUM

Summaries

| | |
|-------------|----------|
| Total | Total |
| 2 B, 20 G | 4 G |
| Tientsin | Kuei-sui |
| One B, 8 G | 4 G |
| Peiping | |
| One B, 11 G | |
| Pao-ting | |
| One G | |

[Adjoins page 14 here.]

| | |
|------------|------------|
| Total | Total |
| 8 B, 7 G | 10 B, 31 G |
| Tientsin | Tientsin |
| 2 B, 5 G | 3 B, 13 G |
| Peiping | Peiping |
| 2 B, One G | 3 B, 12 G |
| Kalgan | Pao-ting |
| One G | One G |
| Ta-t'ung | Kalgan |
| 2 B | One G |
| Kuei-sui | Ta-t'ung |
| 2 B | 2 B |
| | Kuei-sui |
| | 2 B, 4 G |

[Adjoins page 17 here.]

CONFIDENTIAL
- 16 -

CONFIDENTIAL

50X1-HUM

[Adjoins page 15 here.]

Tientsin E
11

Peiping
8

Total 19

[Adjoins page 16 here.]

CONFIDENTIAL

- 17 -

CONFIDENTIAL

50X1-HUM

Table 5. Planned Loaded Cars Outbound to ... Bureau

| Month August 1950 | Border Stations | Destination | Commodity | Types of Freight Cars | | | | | | Total No | Remarks |
|----------------------|-----------------|-------------|-------------------|-----------------------|---|---|---|---|---|----------|---------|
| | | | | B | G | F | T | H | O | | |
| | Liu-li-ho | Tsinan | Cement | 2 | | | | | | 2 | |
| | Liu-li-ho | Suchow | Cement | 1 | | | | | | 1 | |
| | Tientsin N | Kai-feng | Military supplies | 1 | | | | | | 1 | |
| | | | Total | 4 | | | | | | 4 | |

CONFIDENTIAL

- 18 -

CONFIDENTIAL

50X1-HUM

Table 6. Planned Outbound Cars to a Foreign Bureau

| Month August 1950 | Taichung Bureau | | | | | | | | | | | Tai-yuan Bureau | |
|----------------------|------------------------|-------------------|-------------|-----------------------------|-------------|---------------|---|---|---|---|-------|-----------------|--|
| | Dispatching Station | Order Stations | Destination | | Commodity | Types of Cars | | | | | Total | Remarks | |
| | | | Bureau | Station | | B | G | T | H | O | | | |
| | Sai-yeh | Te-hsien | Shanghai | Shanghai | coal | 1 | | | | | 1 | | |
| | Yang-ch'uan | Te-hsien | Shanghai | Shanghai | coal | 10 | | | | | 10 | | |
| | Sai-yeh-Hsin | Te-hsien | Shanghai | Shanghai Machuan Dong | coal | 1 | | | | | 1 | | |
| | Sai-yeh-Hsin | Te-hsien | Shanghai | Shanghai | coal | 5 | | | | | 5 | | |
| | Sai-yeh-Hsin | Te-hsien | Shanghai | Shanghai Machuan Dong | coal | 1 | | | | | 1 | | |
| | Sai-yeh-Hsin | Te-hsien | Shanghai | Shanghai | Mined goods | 1 | | | | | 1 | | |
| | | | | | | 23 | | | | | 23 | | |

CONFIDENTIAL

- 19 -

CONFIDENTIAL

50X1-HUM

TABLE 7. INCOMING FREIGHT TRANSPORT PLAN BY STATIONS

MONTH
AUGUST 1950

... SUBBUREAU

| CATEGORY | ORIGIN | DESTINATION | COMMODITIES | SHIPPER | CONSIGNEE | TYPES OF CARS | | | | | KILOMETRAGES IN SUBBUREAUS TIENTSIN PEIPING KALGAN |
|------------------------|--------|------------------|----------------------------------|---------|-----------|---------------|---|---|---|---|---|
| | | | | | | B | G | F | T | O | |
| [VIA] TE-HSIEN | | TIENTSIN E | GRAIN 1, OIL 1, PICK-UP | | | 3 | | | | | 717 |
| | | TIENTSIN N | PICK-UP 1 | | | 1 | | | | | 234 |
| | | TE-HSIEN | PICK-UP 3 COAL 20 | | | 3 | | | | | |
| [VIA] SHIH-CHIA-CHUANG | | PEIPING | GRAIN 2 | | | 2 | | | | | 469 |
| | | PEIPING | GRAIN 8, LCL 1, PICK-UP 1 | | | 10 | | | | | 232 |
| | | TIENTSIN E | COTTON 5, GRAIN 1, MIXED GOODS 5 | | | 11 | | | | | 2,663 |
| | | T'UNG-HSIEN | GRAIN 2 | | | 2 | | | | | 47 |
| | | FENG-T'AI | PICK-UP 2, MISCELLANEOUS | | | 4 | | | | | 4,202 |
| | | TIENTSIN N | 1 FULL LCL | | | 1 | | | | | 562 |
| | | PAO-TING | COAL 13 | | | 13 | | | | | 1,065 |
| | | TIENTSIN | MIXED 4, COAL 15 | | | 19 | | | | | 382 |
| | | CHENG-TING | COAL 3 | | | 3 | | | | | 82 |
| | | T'UNG-HSIEN | COAL 5 | | | 5 | | | | | 1,708 |
| | | CH'ING-FENG-TIEN | COAL 1 | | | 1 | | | | | 7,299 |
| | | TUNG-CHIANG-SHOU | COAL 1 | | | 1 | | | | | 44 |
| | | PEIPING | COAL 8 | | | 8 | | | | | 357 |
| | | T'ANG-KU | COAL 1 | | | 1 | | | | | 84 |
| | | SHIH-CHING-SHAN | COAL 22 | | | 22 | | | | | 39 |
| | | FENG-T'AI | IRON 1 | | | 1 | | | | | 2,130 |
| | | | | | | | | | | | 382 |
| | | | | | | | | | | | 6,853 |
| | | | | | | | | | | | 266 |

CONFIDENTIAL

- 20 -

[ADJOINS PAGE 22 HERE.]

[Adjoins page 21 here.]

CONFIDENTIAL

50X1-HUM

RECEIVED AND NONE UNLOADED

| | | |
|----------|-------|--------|
| TIENTSIN | 998 | 130 |
| PEIPING | 4,522 | 11,481 |

RECEIVED AND HOME UNLOADED

RECEIVED FOR THROUGH TRANSIT

RECEIVED FOR THROUGH TRANSIT

TIENTSIN
PEIPING

469
5.584 7.641

TOTAL $10,573 \cancel{517} + 19,252 = 29,825$

CONFIDENTIAL

- 21

LEADERS PAGE 20 HERE

KILOMETRAGES IN OTHER BUREAUS
TSI-NAN T'AI-YUAN CHENG-CHOU SHANG-HAI NORTHEAST HENG-YANG

KILOMETRAGES IN OTHER BUREAUS
TSI-NAN T'AI-YUAN CHENG-CHOU SHANG-HAI NORTHEAST HENG-YANG

ENTERING FROM T'AI-YUAN BUREAU

SUMMARIZED KILOMETRAGES IN
HOME BUREAU

HOME AND FOREIGN LOADING
AND HOME UNLOADING
B
G
10,573
19,252

| | |
|---------|---------------|
| F | |
| T | |
| H | |
| , TOTAL | <u>29,825</u> |

HOME AND FOREIGN LOADING
AND FOREIGN UNLOADING
/TOTAL = 7

GRAND TOTAL 29,825

CONFIDENTIAL

Sanitized Copy Approved for Release 2011/09/13 : CIA-RDP80-00809A000700150446-9

TE-HSIEN TO TSINAN: MISCELLANEOUS
TE-HSIEN TO SHANGHAI:

ADJOINS PAGE 20 HERE

COMBINED

4

23: (MIXED: ONE, MISCELLANEOUS: 22)

TOTAL: 116* CARLOADS OF GRAIN, 112 CARLOADS OF COAL, 5 CARLOADS OF COTTON, ONE CARLOAD OF IRON, 8 PICK-UP CARS, 2 FULL CARLOADS OF LCL, 12 CARLOADS OF MIXED GOODS, ONE CARLOAD OF OIL, AND 3 CARLOADS OF MISCELLANEOUS CARGO.

TOTAL: 37 BOXCARS, (9 FROM TE-HSIEN AND 28 FROM SHIH-CHIA-CHUANG) AND 121 GONDOLA CARS (20 FROM TE-HSIEN AND 101 FROM CHIN-CHIA-CHUANG).

COMPUTATION OF KILOMETRAGE: BOXCARS : $1,467 + 9,106 = 10,573$
GONDOLAS: $130 + 19,122 = 19,252$
TOTAL : $1,597 + 28,778 = 29,825$

*THIS FIGURE PROBABLY SHOULD BE 147

CONFIDENTIAL

- 22 -

CONFIDENTIAL

50X1-HUM

TABLE 5. PLANNING TRAIN SCHEDULES

MONTH
MAY 1950

| RAILROAD LINES | RUNS | DIRECTION | TRAIN SCHEDULES | | | | | | TOTAL NO OF CARS | SPECIAL SERVICE TRAINS | NOTES |
|-------------------------------|-------------------------------------|-----------|--------------------------|---------|-------|-------|---------|-------|---------------------|------------------------------|-------|
| | | | WAY | | CARGO | | | | | | |
| | | | MIXED | FREIGHT | COAL | EMPTY | BALLAST | OTHER | | | |
| | | | NUMBER OF TRAINS / DAILY | | | | | | | | |
| PEIPING -- SHAN-HAI-KUAN LINE | SHAN-HAI-KUAN TO CH'IN-HUANG-TAO | UP | | 1 | | | | | | | |
| PEIPING -- KU-PEI-KUO LINE | | DOWN | | 1 | | 7 | | 7 | 8 | | |
| PEIPING -- TUNG-HO-KUO LINE | CH'IN-HUANG-TAO TO KU-YEH | UP | | 1 | | | | 9 | 10 | | |
| | | DOWN | | 1 | 2 | 5 | | 1 | 10 | | |

CONFIDENTIAL

- 23 -

CONFIDENTIAL

50X1-HUM

TABLE 9. PLANNED KILOMETRAGE OF LOADED CARS

MONTH
MAY 1950

TIENTSIN RAILWAY BUREAU

| SUBBUREAU | TYPES OF CARS | CARS FOR HOME UNLOADING | | | | CARS FOR FOREIGN UNLOADING | | | | COMBINED TOTAL KILOMETRAGE | REMARKS |
|-------------------|-----------------------|-------------------------|---------------------------|------------------------|------------------------------------|----------------------------|---|--|------------------------------------|----------------------------|---------|
| | | HOME SUBBUREAU LOADING | FOREIGN SUBBUREAU LOADING | FOREIGN BUREAU LOADING | TOTAL KILOMETRAGE OF CARS UNLOADED | HOME SUBBUREAU LOADING | INCOMING FROM OTHER SUBBUREAU FOR TRANSIT | INCOMING FROM FOREIGN BUREAU FOR TRANSIT | TOTAL KILOMETRAGE OF CARS UNLOADED | | |
| TIENTSIN | B G F T O | | | | | | | | | | |
| OTHER SUB-BUREAUS | B G F T O | | | | | | | | | | |
| COMBINED TOTAL | | 29,519 | 36,247 | 20,634 | 204,400* | 90,652 | 16,335 | 108,451 | 215,448* | 419,848 | |
| ENTIRE BUREAU | B G F T O | | | | | | | | | | |
| NET TOTAL | | | | | 310,629* | | | | 109,219* | 419,848 | |

*NO EXPLANATION GIVEN FOR VARIANCE BETWEEN RESPECTIVE TOTALS.

CONFIDENTIAL

- 24 -

CONFIDENTIAL

50X1-HUM

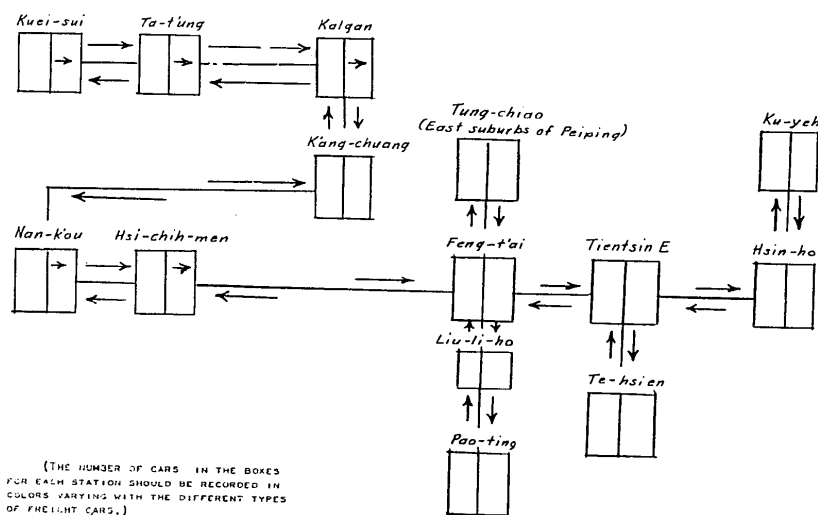
TABLE 10. PLANNED EMPTY CAR KILOMETRAGE RATIO

MONTH
MAY 1950

| SUBBUREAUS | RUNS | DISTANCES BETWEEN TERMINALS | LOADED CARS | | BOX CARS (B) | | EMPTY CAR KILO- METRAGE RATIO | G | F | T | O |
|-------------------------|---------------------------|-----------------------------------|-------------|-------------|--------------|-------------|----------------------------------|---|---|---|---|
| | | | NO | KILOMETRAGE | NO | KILOMETRAGE | | | | | |
| TIENTSIN | SHAN-HAI-KUAN | 17.2 | 152 | 2,614.4 | 128 | 2,201.6 | 84 | | | | |
| | CH'IN-HUANG-TAO | | | | | | | | | | |
| | CH'IN-HUANG-TAO KU-YEH | 111.2 | 157 | 17,458.4 | 129 | 14,344.8 | 82 | | | | |
| | TOTAL | | | 63,735.9 | | 38,334.7 | 60.14 | THESE COLUMNS FOR OTHER TYPES OF CARS SHOULD BE FILLED IN IN THE SAME MANNER AS THOSE FOR BOX- CARS | | | |
| PEIPING | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | |
| KALGAN | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | |
| OTHER | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | |
| TOTAL FOR ENTIRE BUREAU | | | | 107,226.4 | | 45,566.2 | 42.49 | | | | |

50X1-HUM

TABLE 11. RECORD OF LOADED CARS TO PASS SWITCHING STATIONS



(THE NUMBER OF CARS IN THE BOXES FOR EACH STATION SHOULD BE RECORDED IN COLORS VARYING WITH THE DIFFERENT TYPES OF FREIGHT CARS.)

CONFIDENTIAL

- 26 -

CONFIDENTIAL

50X1-HUM

TABLE 12. SUMMARY FORM FOR PLANNING USE OF CARS

MONTH
JULY 1950

| DESTINATION ORIGIN | | TIENTSIN BUREAU | | | | | | | | | | TIENTSIN BUREAU | |
|-----------------------|----------|------------------------|-----|----------|----------|----------------------|---------|---------------------|------------------|-----------------|-----------|-----------------|-----------------|
| | | DIRECTION OF MOVEMENTS | | | | | | | | | | TOTAL | PICK-UP CARS |
| | | TIENTSIN SUBBUREAU | CWT | TIENTSIN | TE-HSIEN | PEIPING SUBBUREAU | PEIPING | KALCAN SUBBUREAU | TSINAN BUREAU | VIA TE-HSIEN | TOTAL | | |
| | | B G F T O | | | | B G F T O | | B G F T O | B G F T O | B G F T O | B G F T O | | |
| TIENTSIN BUREAU | TIENTSIN | L | | | | | | | | | | | |
| | IF | T | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| PEIPING | L | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| | H | | | | | | | | | | | | |
| KALCAN | L | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| | H | | | | | | | | | | | | |
| TOTAL | L | | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| OTHER BUREAUS | L | | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| C. C. | L | | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| TOTAL | L | | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |
| GRAND TOTAL | L | | | | | | | | | | | | |
| | M | | | | | | | | | | | | |
| | T | | | | | | | | | | | | |

LEGEND: LM= FIGURES FOR LAST MONTH; TM= FIGURES FOR THIS MONTH; CWT= CH'IN-HUANG-TAO; C. C.= CHENG-CHOU

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

TABLE 13. CAR DISTRIBUTION AND INCOMING AND OUTGOING CAR PLANS

MONTH
AUGUST 1950

| SUBBUREAUS | | CARS IN USE FOR | | ASSIGNED TO SPECIAL USE | | YARD USE | COMMANDEERED | IN RESERVE | UNDER REPAIR | TOTAL |
|-------------------------|--------------------------------|-----------------|--------------------|-------------------------|------------------|----------|--------------|---------------|-----------------|-------|
| | | TRANSPORTATION | SLIGHTLY DEFECTIVE | GENERAL | EMERGENCY RELIEF | | | | | |
| TIENTSIN SUB- BUREAU | B G F T O TOTAL | | | | | | | | | |
| PEIPING SUB- BUREAU | B G F O | | | | | | | | | |
| KALGAN SUB- BUREAU | B G F O | | | | | | | | | |
| ENTIRE BUREAU | B G F, ETC. TOTAL | | | | | | | | | |

CONFIDENTIAL

- 28 -

CONFIDENTIAL
[Replaces Page 29 here.]

50X1-HUM

CONFIDENTIAL

- 29 -
 (Adding Page 28 here)

SUBSOURCES

BUREAU LIMITS

TIENTSIN

SHAN-HAI-PING
 TCHANG (FOR TAIWAN BOP)
 TCHANG (FOR TAIWAN BOP)
 TCHANG H

PEIPING

CHANG H
 CHANG H

SUBSOURCES

BUREAU LIMITS

SAME AS ABOVE

SAME AS ABOVE

| OUTGOING CARS (CREDIT) | | | | | | | | | | | |
|------------------------|---|---|---|---|-------|-------|---|---|---|---|-------|
| LOADED | | | | | | EMPTY | | | | | |
| B | G | F | T | O | TOTAL | B | G | F | T | O | TOTAL |

GRAND TOTAL

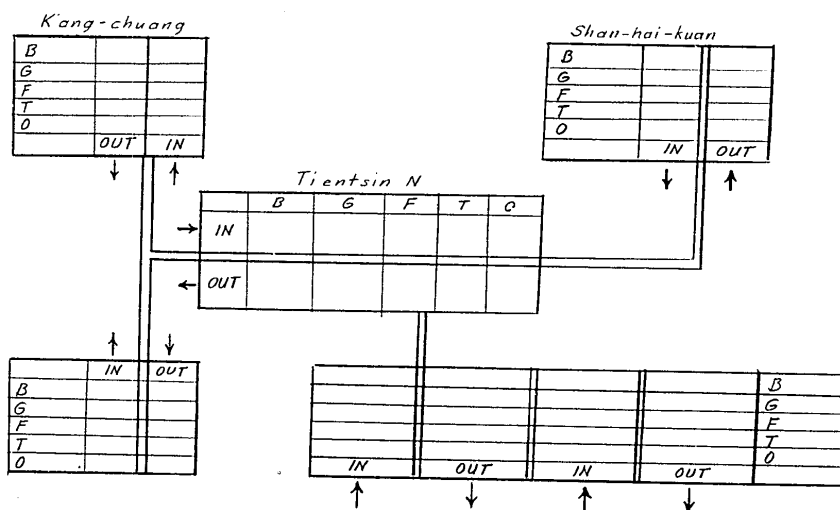
| INCOMING CARS (A/D) | | | | | | | | | | | |
|---------------------|---|---|---|---|-------|-------|---|---|---|---|-------|
| LOADED | | | | | | EMPTY | | | | | |
| B | G | F | T | O | TOTAL | B | G | F | T | O | TOTAL |

GRAND TOTAL

CONFIDENTIAL

50X1-HUM

Table 14. Planned Car Movements by Border Stations



CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

TABLE 15. PLANNED DISPOSITION OF CARS BY COMMODITIES, NUMBERS, AND TONNAGES

MONTH
AUGUST 1950

| | | | <u>GRAIN</u> | <u>COTTON</u> | <u>LUMBER</u> | <u>FLOUR</u> | <u>OIL</u> | <u>TEA</u> | <u>MINERALS</u> | <u>COAL</u> | <u>SALT</u> | <u>...</u> |
|---|---|--------------|-------------------|---------------|---------------|--------------|------------|------------|-----------------|-------------|-------------|------------|
| <u>BUREAU</u> | | | | | | | | | | | | |
| TIENTSIN RAILWAY BUREAU | PEI-TING SUBBUREAU | PEI-TING | CARS PER DAY | | | | | | | | | |
| | | | CARS PER MONTH | | | | | | | | | |
| | | | TONNAGE PER MONTH | | | | | | | | | |
| | PAOTING | CARS PER DAY | | | | | | | | | | |
| | | | CARS PER MONTH | | | | | | | | | |
| | | | TONNAGE PER MONTH | | | | | | | | | |
| | TOTAL | CARS PER DAY | | | | | | | | | | |
| | | | CARS PER MONTH | | | | | | | | | |
| | | | TONNAGE PER MONTH | | | | | | | | | |
| | DATA SIMILAR TO ABOVE FOR OTHER SUBBUREAUS. | | | | | | | | | | | |
| TOTAL OF DATA SIMILAR TO ABOVE FOR THE ENTIRE TIENTSIN RAILWAY BUREAU | | | | | | | | | | | | |
| DATA SIMILAR TO ABOVE FOR GOODS INCOMING FROM ANOTHER BUREAU FOR THROUGH TRANSIT TO THE TERRITORY OF A THIRD BUREAU | | | | | | | | | | | | |
| GRAND TOTAL | NO OF CARS | | CARS PER DAY | | | | | | | | | |
| | | | CARS PER MONTH | | | | | | | | | |
| | | | TONNAGE PER MONTH | | | | | | | | | |

CONFIDENTIAL
31

CONFIDENTIAL
[REDACTED]

50X1-HUM



| <u>OTHERS</u> | <u>FULL CARLOAD ECL</u> | <u>TOTAL</u> | <u>COAL</u> | <u>CEMENT</u> | <u>RAILWAY SUPPLIES</u> | <u>OTHERS</u> | <u>TOTAL</u> | <u>MILITARY SUPPLIES</u> | <u>TOTAL</u> |
|---------------|-------------------------|--------------|-------------|---------------|-------------------------|------------------|--------------|--------------------------|--------------|
| | | | | | <u>ROCK</u> | <u>RAIL TIES</u> | | | |

CONFIDENTIAL

7000105 PAGE 31 HERE

CONFIDENTIAL

50X1-HUM

50X1-HUM

CONFIDENTIAL

Table 16. Technical Statistics for Use in Planning

For the month of ...1950

Tientsin Railway Bureau

| Tientsin Subbureau | Peiping Subbureau | Kalgan Subbureau | Entire Bureau |
|-----------------------|----------------------|---------------------|------------------|
|-----------------------|----------------------|---------------------|------------------|

Daily Work Load

Number of cars loaded (CLD)

Number of loaded cars entering bureau

Total number of loaded cars (DWL)

Number of cars unloaded (CUN)

Kilometrage of

Loaded cars

Empty cars

Total

Empty Car Kilometrage Ratio

Average Turnaround Distance (km)

Loaded cars

Empty cars

Average for all cars

Average traveling speed

Turnaround time (TRT)

Number of cars in use

B

G

F

T

O

Total

Empty car percentage

| | |
|-----------------|-------------------------|
| Operating ratio | $\frac{CLD + CUN}{DWL}$ |
|-----------------|-------------------------|

Number of cars on railroad work

Turnaround time of cars on railroad work

- 33 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

| <u>Tientsin</u> | <u>Peiping</u> | <u>Kalgan</u> | <u>Entire</u> |
|------------------|------------------|------------------|---------------|
| <u>Subbureau</u> | <u>Subbureau</u> | <u>Subbureau</u> | <u>Bureau</u> |

Average distance between marshaling yards

Average switching time

Average stopping time

- E N D -

50X1-HUM

- 34 -

CONFIDENTIAL